Item #12

California Regional Water Quality Control Board
Santa Ana Region

FACT SHEET

GENERAL WASTE DISCHARGE REQUIREMENTS FOR CONCENTRATED ANIMAL FEEDING OPERATIONS (DAIRIES AND RELATED FACILITIES) WITHIN THE SANTA ANA REGION, ORDER NO. R8-2004-0055, NPDES NO. CAG018001

I. Need for General Waste Discharge Requirements

The Federal Clean Water Act (CWA) defines animal feeding operations (AFOs) as operations where animals have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and where vegetation is not sustained in the confinement area during the normal growing season. There are approximately 254 dairy related AFOs in the Santa Ana Region. These AFOs include dairies, heifer ranches and calf nurseries, and contain about 371,000 animals [198,000 lactating (milking) cows, 34,000 dry (pregnant) cows, 70,000 heifers (12-18 month old cows), and 69,000 calves (less than 12 month old cows)]. Two hundred and sixteen of these facilities (with 302,000 animals) are located in the Chino Basin, while 35 of the facilities (with 67,000 animals) are located in the San Jacinto River Basin.

The CWA defines a concentrated animal feeding operation (CAFO) as any AFO that either meets a certain animal population threshold, or, regardless of population, is determined to be a significant contributor of pollutants to waters of the United States by the appropriate authority. The CWA states that all CAFOs are point sources, and thus are subject to NPDES permitting requirements. When considering the designation of an AFO as a CAFO as a result of being a significant contributor of pollutants, the appropriate authority (the Regional Board is an appropriate authority) must consider certain factors. These factors include, in part, the location of the AFO relative to surface waters, the slope, rainfall and other factors that increase the likelihood or frequency of discharges, and the impact of the aggregate amount of waste discharged from multiple AFOs in the same geographic area. Regional Board staff has determined that all dairies, heifer ranches and calf nurseries in the Region meet one or more of these criteria, and, therefore, should be designated as CAFOs under the CWA. Tentative Order No. R8-2004-0055 designates all dairies, heifer ranches and calf nurseries in the Region as CAFOs, and makes them subject to NPDES requirements. Therefore, the acronym "CAFO" will be used to describe all facilities addressed by Tentative Order No. R8-2004-0055.

The wastes generated by CAFOs within the Santa Ana Region include manure that the animals excrete in the corrals, process wastewater[1] (primarily wash water from the milk barn), including storm water runoff from manured areas. Except for the manure that a milking cow excretes while in the milk barn,

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[1] *Process wastewater means water directly or indirectly used in the operation of the AFO for any or all of the following: spillage of overflow from animal watering systems; washing, cleaning, or flushing pens, barns, manure pits, or other AFO facilities; direct contact swimming, washing, or spray cooling of animals; or dust control. Process wastewater also includes any water which comes into contact with any raw materials, products, or byproducts including manure, litter, feed, milk, or bedding.*

all of the manure excreted from the animals is deposited in the corrals. The average moisture content of manure when it is removed from the corrals is about 33% (all of the manure numbers used in this report refer to manure with a 33% moisture content). In 2003, CAFOs removed approximately 1.5 million tons of manure from corrals in the Region. This is equivalent to about 3,500,000 cubic yards of manure. It is estimated that 14 million gallons of wash water, which contain about 10 percent of the manure produced by milking cows, is discharged to the ground each day. Wastes produced at CAFOs contain high levels of bacteria, biochemical oxygen demand, ammonia, nitrate, phosphorus, and other salt compounds.

Proper management of wastes from CAFOs is essential to protect the surface and groundwater resources of the Region. Wastes in rainfall runoff from CAFOs in the Chino Basin have the potential to affect Chino Creek, Cucamonga Creek/Mill Creek and Reach 3 of the Santa Ana River, which are 303(d) listed impacted water bodies. Any process wastewater from CAFOs that is discharged to the Santa Ana River affects the quality of groundwater in Orange County, since the Orange County Water District captures and percolates a significant amount of the flow of the Santa Ana River to recharge the Santa Ana Forebay Groundwater Subbasin.

The Chino Basin continues to be considered to have the highest concentration of dairy animals in the world, with its 216 facilities and 302,000 animals located within an area of about 25 square miles (15,000 acres). The application of manure and process wastewater to the ground in the Chino Basin has resulted in significant groundwater pollution, specifically total dissolved solids (TDS) and nitrate. Affected groundwater in the Chino Basin also impacts the quality of the Santa Ana River because the Santa Ana River becomes a gaining steam in the Prado Basin where groundwater from the Chino Basin contributes to the surface flow of the Santa Ana River.

Wastes from CAFOs in the San Jacinto River Basin have the potential to affect the San Jacinto River, Canyon Lake and Lake Elsinore. Canyon Lake and Lake Elsinore are 303(d) listed impacted water bodies. Phosphorus from various sources, including CAFOs, is considered to be the primary cause of algae blooms in Lake Elsinore, the largest natural freshwater lake in Southern California. These algae blooms deplete oxygen in the lake, creating fish kills and other conditions that affect the economic development and aesthetics of the area.

Beginning in 1972, and continuing through 1994, the Regional Board's regulatory approach was to issue individual waste discharge requirements to each dairy, heifer ranch and calf nursery. Changes in the location, size, number of animals, or operator of these facilities were frequent, necessitating frequent rescissions of existing waste discharge requirements and adoption of new requirements by the Regional Board. The time demands to draft individual waste discharge requirements for the large number of these facilities that were in the Region far exceeded the staff resources available to do so. Consequently, in 1994, the Regional Board adopted Order No. 94-7, the first general waste discharge requirements for these facilities. When Order No. 94-7 expired in 1999, the Regional Board adopted Order No. 99-11, General Waste Discharge Requirements For Concentrated Animal Feeding Operations (Dairies and Related Facilities) Within The Santa Ana Region (NPDES NO. CAG018001). Order No. 99-11 expired on August 1, 2004, but stated that the Order shall remain in force until a new general permit is issued. Adoption of Order No. R8-2004-0055 is necessary to continue regulatory oversight of the CAFOs within the Region.

Criteria cited in 40 CFR 122.28 state that general permits may be issued for facilities 1) involving the same or substantially similar types of operations; 2) discharging the same types of wastes; 3) having the same or similar operating conditions; 4) requiring the same or similar monitoring; and 5) that are more appropriately regulated under a general permit rather than individual permits. The types of wastes and appropriate waste discharge requirements for dairies and related facilities are similar. Given this, the CAFOs in the Region can be adequately and appropriately regulated by coverage under the terms of a general waste discharge permit.

II. Basis for Discharge Limitations

Wastes from CAFOs contain high concentrations of salts (total dissolved solids, including nitrates). These wastes originate from the excretion of manure in corrals and milk barns. Wash water used in the milk barn for milk barn and cow cleaning contains approximately 10 percent of the daily manure excreted from a cow[2]. Wash water is flushed from the milk barn, generally into on-site wastewater containment ponds. Also, rainfall runoff that comes into contact with manure in the corrals carries manure from the corrals into the wastewater containment ponds.

The Regional Board has conducted extensive computer modeling studies on TDS and nitrate to determine acceptable salt loading rates to groundwater from various sources, including CAFOs. These studies are the basis of the TDS and nitrogen management plan presented in the 1995 Water Quality Control Plan for the Santa Ana River Basin (Basin Plan) and its most recent amendment (Regional Board Resolution No. R8-2004-0001, hereinafter referred to as the Basin Plan Amendment). The State Water Resources Control Board (SWRCB) approved the Basin Plan Amendment on September 30, 2004. The Basin Plan Amendment will become effective upon approval by the Office of Administrative Law (OAL) and USEPA (expected by December 2004). The Basin Plan Amendment incorporates an updated Total Dissolved Solids (TDS) and Nitrogen Management Plan for the Santa Ana Region, which includes revised groundwater subbasin boundaries (groundwater management zones), revised TDS and nitrate-nitrogen quality objectives for groundwater, revised TDS and nitrogen waste load allocations, revised reach designations, and revised TDS and nitrogen objectives and beneficial uses for specific surface waters.

The application of manure and the discharge of process wastewater to land results in the discharge of salts, and other pollutants, that has adversely impacted, and continues to adversely impact, the quality of groundwater and surface water in the Region. Dairy manure contains much more salt per unit of nitrogen than commercial fertilizers. The Regional Board's 1990 report, "Dairies and Their Relationship to Water Quality Impacts in the Chino Basin", showed that the use of manure as a fertilizer results in two to four times more salt reaching groundwater (up to 10 times more non-nitrate salts) than the use of non-manure commercial fertilizers. For this reason, the use of manure to meet the nutrient needs of crops results in excessive application of salts that are not utilized by plants, which results in the discharge of these salts to groundwater.

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[2] *From "Dairy Waste Management," commissioned by the Santa Ana Watershed Planning Agency (SAWPA) and prepared by Albert A. Webb Associates, March 1974*

The majority of the CAFOs in the Region overlie the Chino North Groundwater Management Zone and several groundwater management zones in the San Jacinto River Basin. All of these groundwater management zones lack assimilative capacity for TDS and nitrogen discharges from CAFOs. For groundwater management zones without assimilative capacity, salt inputs that exceed the water quality objectives for these management zones cannot be allowed (State Water Resources Control Board Order No. 73-4, the Rancho Caballero decision). To meet the water quality objectives in the Chino North Groundwater Management Zone and the groundwater management zones in the San Jacinto River Basin, the discharge of corral manure and other animal wastes, such as process wastewater, and their application on cropland, must be controlled to prevent exceeding water quality objectives. Salt discharges in excess of water quality objectives can only be allowed if the impacts of the salt discharges are offset.

Order No. 99-11 included three significant changes from the Regional Board's prior CAFO regulatory program. First, Order No. 99-11 prohibited the disposal of corral manure anywhere in the Region and prohibited the use of corral manure as a fertilizer in any groundwater subbasin lacking assimilative capacity for salts, including the Chino Basin, thereby prohibiting the application of any corral manure in the Chino Basin for any reason (prior to the adoption of Order No. 99-11, the disposal of manure was limited to 4.4 tons/acre on disposal land, and use of corral manure as a fertilizer on cropland was limited to 17.6 tons/acre). Second, corral manure was required to be hauled from the facility within 180 days of being removed from the corrals, thereby preventing the long-term accumulation of manure stockpiles on-site (prior to the adoption of Order No. 99-11, some facilities were increasingly stockpiling manure on-site rather than paying to have the manure hauled away). Third, Order No. 99-11 required all CAFOs to develop and implement engineered waste management plans (prior to the adoption of Order No. 99-11, repairs to waste management structures occurred on an as needed basis, and comprehensive waste management design, construction or operation plans for CAFOs did not exist).

Concurrent with the adoption of Order No. 99-11, the Regional Board adopted Cease and Desist Order (CDO) No. 99-65. CDO No. 99-65 included a time schedule for CAFOs to develop and implement their engineered waste management plans (EWMPs). Also, as a result of the significant public comment regarding the economic hardship that would result for farmers in the Chino Basin if they were not allowed to use corral manure on their cropland, and considering the limited, and decreasing amount of cropland that was available in the Chino Basin, CDO No. 99-65 allowed CAFOs to continue to supply manure for use on existing cropland in the Chino Basin at agronomic rates unless the Regional Board determined that progress was not being made toward construction of a second desalter in the Chino Basin.

Chino Basin

Eighty six percent of the CAFOs in the Region are located in the Chino Basin. Based upon data collected from the CAFO annual reports for 2003, 1.2 million tons of corral manure were removed from the corrals in the Chino Basin. Of the 1.2 million tons of corral manure that were removed from the corrals in 2003, 10% (118,000 tons) was applied to cropland within the Chino Basin, 44% (529,000 tons) was hauled to cropland outside Chino Basin, but within the Region, 26% (316,000 tons) was hauled to composting facilities, and 20% (233,000 tons) was hauled to cropland located outside the Region. Since 1999, an average of about 127,000 tons of manure per year were applied to cultivated

croplands in the Chino Basin. In comparison, in the five years prior to 1999, over 400,000 tons of manure per year were applied to land in the Chino Basin for disposal, use as fertilizer and placed in accumulating stockpiles (the amount of manure remaining in the Chino Basin each year had been slowly decreasing since its peak in the early 1980s when well over 500,000 tons of manure remained in the Chino Basin each year).

The Chino I desalter began operation in August 2000. The extraction wells that supply water to the desalter remove an average of about 14,500 tons of salt per year from the Chino Basin. Kaiser Steel is being credited with a salt offset of 4,000 tons of this salt each year for a period of 25 years, pursuant to a previous settlement agreement with the Regional Board in 1993. Pursuant to a 1996 agreement between the Regional Board, the Chino Basin Watermaster and the Chino Basin Appropriative, Agricultural and Non-Agricultural Pools, the salt removed from the Chino I desalter, minus the 4,000 tons per year that is credited to Kaiser Steel, is credited as an offset for continuing salt discharges from CAFOs in the Chino Basin. This means that an average of about 10,500 tons of salt removal is available each year as an offset for continuing salt discharges from CAFOs in the Chino Basin. Regional Board staff estimates that about 5,000 tons of salt will reach the groundwater each year as a result of the discharge of wash water, which contains the manure excreted by the cows when they are in the milk barn. The remaining offset, about 5,500 tons of salt removal per year, is available to offset discharges to groundwater as a result of the percolation of rainfall runoff from corrals and rainfall runoff from temporary manure stockpiles. Although the amount of salt reaching groundwater from these two sources cannot be accurately measured, Regional Board staff estimates that the amount of salt reaching groundwater from these two sources is likely not greater than the available offset. Since the salt that is present in discharges from wash water and on-site rainfall runoff is being offset by the desalter, Order No. R8-2004-0055 does not prohibit these discharges, and CAFOs can continue these discharges in the Chino Basin.

Since the salt offset that is available for CAFOs in the Chino Basin is considered to be entirely utilized by wastewater discharges from the CAFOs, no offset is available for the salt that reaches groundwater from any application of corral manure to land in the Chino Basin, including the application of corral manure for fertilizer. This is why Order No. 99-11 prohibited the application of corral manure for any purpose in the Chino Basin and why the same prohibition is included in Order No. R8-2004-0055. However, CDO No. 99-65 allowed the CAFOs to continue to supply manure for application to existing cultivated croplands (not pasture lands) within the Chino Basin at agronomic rates unless the Regional Board found that progress was not being made toward the construction and operation of a second desalter within the Chino Basin. There has been progress toward the construction and operation of a second desalter, so the application of manure on existing cultivated croplands in the Chino Basin has continued (construction of a second desalter is underway and is expected to be completed in early 2005). As noted above, since the adoption of Order No. 99-11, an average of about 127,000 tons of manure per year were applied to cultivated croplands in the Chino Basin. The application of manure at this rate will result in about 9,500 tons of salt reaching the groundwater each year. With the adoption of Order No. R8-2004-0055, CDO No. 99-65 will no longer exist. Since there is no assimilative capacity available in the Chino Basin for this salt loading and since there is no offset available to provide mitigation for this salt loading, the prohibition included in Tentative Order No. R8-2004-0055 on the application of manure in any groundwater subbasin lacking assimilative capacity will

result in the cessation of the continued application of manure for fertilizer on cultivated croplands in the Chino Basin.

San Jacinto River Basin

The 1995 Basin Plan stated that all of the San Jacinto groundwater basins with the exception of the Canyon Subbasin had assimilative capacity for planned salt waste loads. Since the San Jacinto groundwater basins did not lack assimilative capacity, the continued discharge of dairy wastewater and the application of corral manure on cultivated croplands in the San Jacinto River Basin was not prohibited by Order No. 99-11. However, the recent Basin Plan Amendment states that all the groundwater management zones in the San Jacinto River Basin, with the exception of Canyon Lake and Perris North, lack assimilative capacity for additional salt inputs.

Historically, manure has been used to supplement the use of commercial fertilizer on agricultural fields in the San Jacinto River Basin. When the Regional Board adopted Order No. 99-11 and prohibited the disposal of corral manure anywhere in the Region and prohibited the use of corral manure as a fertilizer in the Chino Basin, most of the 400,000 tons of manure that was previously remaining in the Chino Basin each year was then hauled to the San Jacinto River Basin for use as fertilizer. Currently, it is estimated that there are about 77,000 acres of land under cultivation in the San Jacinto River Basin. According to the 2003 CAFO annual report data, approximately 631,000 tons of manure were applied as fertilizer in the San Jacinto River Basin. About 423,000 tons of this was manure hauled from the Chino Basin. The remainder of the manure was from the CAFOs in the San Jacinto River Basin, where 93% of the corral manure removed by the CAFOs remains in the San Jacinto River Basin. The 631,000 tons of manure represents a loading of approximately 47,000 tons of salt to the San Jacinto River groundwater subbasins each year. Wash water and storm water runoff discharges account for an additional salt loading of about 4,000 tons per year, for a total salt loading from all CAFOs in the San Jacinto River Basin of about 51,000 tons per year.

Currently, salt offset programs that could allow for the continuation of theses salt discharges in the San Jacinto River Basin have not yet been proposed. A coalition of local CAFO and farming representatives have formed the Western Riverside County Ag Coalition to study and formulate opportunities for salt offsets. However, at this time, no credible options have been developed. In order to allow time for this coalition of CAFOs and agricultural farm operators to formulate an offset proposal or implement efforts to cease the application of manure in the San Jacinto River Basin, Tentative Order No. R8-2004-0055 proposes a 3-year compliance time schedule for the prohibition of land applied manure.

As previously noted, Canyon Lake and Lake Elsinore have been placed on the 303(d) list of impaired water bodies due, in part, to the effects of excessive amounts of phosphorous. The use of manure as a fertilizer on cropland is considered to be one of the sources of phosphorous. Previously, the Regional Board has attempted to limit the amount of manure used for agricultural purposes by including an agronomic rate limitation on the use of manure as a fertilizer in Order No. 99-11.

Consistency with USEPA Nutrient Management Plan Requirements

In March 1999, the United States Department of Agriculture (USDA) and the USEPA finalized their unified national strategy for AFOs. In general, the national strategy recommended the development of comprehensive nutrient management plans (CNMPs) that were intended to bring each CAFO into compliance with the requirements of the Clean Water Act (CWA) and to minimize the impacts to groundwater and surface water from dairy wastes by the implementation of best management practices. In general, a CNMP would assure that appropriate dairy wastewater facilities were developed, constructed and maintained to comply with the requirements of the CWA, and that the use and application of wastewater and manure (i.e. nutrient management) was managed to minimize impacts to groundwater and surface water. The most recent revisions to the NPDES and Effluent Limitation Guidelines and Standards for CAFO regulations, published on February 12, 2003, support this national strategy by requiring the largest CAFOs to develop and implement CNMPs.

Tentative Order No. R8-2004-0055 does not require the development and implementation of CNMPs. The requirements included in Tentative Order No. R8-2004-0055, however are equivalent to, or more stringent than, what would be required in a CNMP. This is based on the following:

- The development and implementation of engineered waste management plans (EWMPs) is required of all CAFOs in the Santa Ana Region to insure professional design, construction and operation of facility process wastewater and runoff containment systems to prevent prohibited process wastewater discharges to surface waters;
- Disposal of liquid wastes and corral manure to land is prohibited unless it is mitigated by an approved program to offset salt discharges to groundwater;
- Annual reporting of manure production and the destination of all manure that is generated, submittal of animal population statistics, and process wastewater containment system monitoring are required;
- The nutrient management component of CNMPs does not address all salts, only nutrients such as nitrogen and phosphorus, whereas Tentative Order No. R8-2004-0055 addresses all salts, including nutrients.

Development and Implementation of EWMPs

In compliance with the CWA and the California Code of Regulations, Tentative Order No. R8-2004-0055 prohibits discharges to any surface water bodies, or tributary thereof, unless rainfall events, either chronic or catastrophic, cause an overflow of process wastewater from a facility designed, constructed and operated to contain all process wastewater plus the runoff (that has been commingled with manure) from a 25-year, 24-hour rainfall event (Title 27, Chapter 7, Subchapter 2, Article 1, Section 22562(a), California Code of Regulations and 40 CFR Part 412). Therefore, process wastewater in overflows resulting from rainfall events that are chronic or catastrophic, or are in excess of a 24-hour, 25-year rainfall event, may be discharged to surface water bodies in accordance with requirements specified in this Order. To insure that compliance with these requirements is achieved, all CAFOs are required to develop and implement an EWMP. The guidelines for the preparation of an EWMP are included in Attachment "B" of Tentative Order No. R8-2004-0055. It is intended that Attachment "B" can be revised, as necessary, by the Executive Officer. Therefore, as with expired Order No. 99-11, Tentative

Order No. R8-2004-0055 authorizes the Executive Officer to make necessary revisions to Attachment "B".

Prohibition on Covering New Discharges Under this Order

The 2003 California 303(d) List and TMDL Priority Schedule includes several surface water bodies in the Santa Ana Region as impaired due to CAFOs, including Chino Creek, Mill Creek (Prado Area), and Reach 3 of the Santa Ana River in the Chino Basin for nutrients, pathogens, salinity/TDS/chlorides, and suspended solids. In the San Jacinto River Basin, Canyon Lake and Lake Elsinore have also been listed on the California 303(d) impaired waters list. The CWA states that NPDES permits cannot be issued to a new source (discharger) if the discharge will cause or contribute to the violation of water quality standards, unless certain specified criteria are met, including the development of TMDLs. In the absence of a current TMDL, in the past, USEPA has recommended that a general permit be limited to current facilities, and that any new sources (i.e., construction of any new facilities) be processed through an application for an individual NPDES permit. Therefore, Tentative Order No. R8-2004-0055 prohibits new sources (i.e., new facilities) from being covered under this general permit. However, this requirement is not expected to be an issue since the last new CAFO that was constructed in the Santa Ana Region was believed to be in the late 1980s.

III. Coverage Under the General NPDES Permit

Dischargers Currently Regulated Under Order No. 99-11 and Dischargers that have Submitted NOIs

These dischargers will be automatically enrolled under the tentative order, once it is adopted. Dischargers who have not yet submitted an acceptable EWMP remain required to do so.

Dischargers Not Currently Regulated Under Order No. 99-11 and Dischargers that have not Submitted NOIs

At least 60 days prior to initiating a discharge at an existing facility, the discharger is required to submit a Notice of Intent (NOI) (see Attachment "A") with the appropriate filing fee and is required to develop an acceptable EWMP[3] within 90 days of receiving the Executive Officer's authorization to discharge wastes.

IV. Discharge Authorization Letter

Upon adoption of this Order, the Executive Officer will issue discharge authorization letters to dischargers currently enrolled under Order No. 99-11 or who have submitted an NOI to be covered under a general permit.

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[3] *New operators/owners of existing facilities for which an EWMP has been approved are not required to submit an additional EWMP.*

Upon receipt of a complete application for initiation of a discharge at an existing facility, the Executive Officer will review the application to determine eligibility for discharge under this Order. If the Executive Officer determines that the discharger is eligible to discharge wastes under this general order, the Executive Officer may authorize the proposed discharge. Otherwise, the Executive Officer may require the discharger to obtain individual waste discharge requirements.

V. Antidegradation Analysis

The Regional Board conducted extensive TDS and nitrate studies using computer models to determine acceptable salt loading rates to groundwater from various land uses, including dairies and other concentrated animal feeding operations. These studies indicate that if the requirements specified in the proposed general permit are met, water quality of the Region is not expected to degrade as a result of discharges authorized under this general permit. The Regional Board, in establishing the requirements in the tentative order, has taken into consideration the requirements of the State and Federal "antidegradation policies" and has determined that the discharges are in conformance with the antidegradation policies.

VI. Written Comments

All written comments regarding the tentative general order should be submitted to: Stephen D. Mayville, Regional Water Quality Control Board, 3737 Main Street, Suite 500, Riverside, CA 92501. Comments can be submitted by USPS mail or by email to: smayville@waterboards.ca.gov.

VII. Information and Copying

Persons wishing further information may write to the address provided (see VI, above) or call the Regional Board at (951) 782-4130. Copies of the proposed waste discharge requirements, and other documents are available at the Regional Board office for inspection and copying by appointment scheduled between the hours of 10:00 a.m. and 4:00 p.m., Monday through Thursday (excluding holidays).

VIII. Register of Interested Persons

Any person interested in a general permit, or in a particular application or group of applications, may leave his name, address, and phone number as part of the file for an application. Copies of tentative waste discharge requirements will be mailed to all interested parties.

IX. Workshop and Public Hearing

The Regional Board will be conducting a public workshop at the regularly scheduled meeting on December 17, 2004 to solicit comments on these tentative general waste discharge requirements. Oral comments will be received during this workshop and all parties are encouraged to submit written comments. These comments will be considered by staff and incorporated into Tentative Order No. R8-2004-0055, as appropriate.

Item # 12

California Regional Water Quality Control Board
Santa Ana Region

Order No. R8-2004-0055
NPDES No. CAG018001

GENERAL WASTE DISCHARGE REQUIREMENTS FOR CONCENTRATED ANIMAL FEEDING OPERATIONS (DAIRIES AND RELATED FACILITIES) WITHIN THE SANTA ANA REGION

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter, Regional Board), finds that:

1. On August 20, 1999, the Regional Board adopted Order No. 99-11, General Waste Discharge Requirements For Concentrated Animal Feeding Operations (Dairies and Related Facilities) Within The Santa Ana Region, NPDES No. CAG018001.

2. 40 CFR 122.28 allows the issuance of general permits to regulate discharges of wastes that meet certain criteria. Order No. 99-11 satisfied the following criteria cited in 40 CFR 122.28 and, as such, was adopted as a general National Pollutant Discharge Elimination System (NPDES) Permit:

   a. Waste discharges involving the same or substantially similar types of operations;
   b. Discharge the same types of wastes;
   c. Require the same or similar operating conditions;
   d. Require the same or similar monitoring; and
   e. Are more appropriately regulated under a general permit rather than individual permits.

3. Order No. 99-11 expedited the preparation of waste discharge requirements, and thus allowed the Regional Board to better utilize staff resources.

4. Order No. 99-11 expired on August 1, 2004 (Provision 3 of Order No. 99-11 stated that Order No. 99-11 shall continue in full force until a new general permit is issued). There are approximately 254 active concentrated animal feeding operations (CAFOs) in the Santa Ana Region. The CAFOs currently enrolled under Order No. 99-11, or in the process of enrolling under Order No. 99-11, will want to continue to discharge wastes. Therefore, it is necessary to renew the waste discharge requirements contained in Order No. 99-11.

5. On February 12, 2003, the United States Environmental Protection Agency (USEPA) published revisions to its Clean Water Act (CWA) regulations for CAFOs. The references to 40 CFR 122, 123, and 412 below incorporate the revisions that are part of the final rule.

6. 40 CFR 122.23 defines an animal feeding operation (AFO) as an operation where animals have been, are, or will be confined and fed for a total of 45 days or more in any 12-month period, and where vegetation is not sustained in the confinement area. An AFO is considered a CAFO based on either a facility's animal population or, regardless of population, if it is determined to be a significant contributor of pollutants to waters of the United States by the appropriate authority. The Regional Board (an appropriate authority) has determined that all dairies, heifer ranches, and calf nurseries within the Region shall be designated CAFOs due to their contribution of pollutants to the Santa Ana River and San Jacinto River (both waters of the United States).

7. Persons discharging, or proposing to discharge, dairy wastes or other similar kinds of wastes from an existing dairy or related facility in any manner that may affect water quality are hereinafter referred to as "discharger" and may obtain coverage under this general permit. Persons discharging, or proposing to discharge, wastes from other types of animal feeding operations must obtain coverage under a separate general permit or individual waste discharge requirements. Persons proposing to discharge wastes from construction of a new dairy or related facility must obtain coverage under individual waste discharge requirements.

8. The Regional Board adopted a revised Water Quality Control Plan (Basin Plan) on March 11, 1994. The Basin Plan became effective on January 24, 1995. The Basin Plan specifies beneficial uses and water quality objectives for surface and ground waters in the Santa Ana Region (Chapters 3 and 4). This Order specifies requirements necessary to meet the water quality objectives and to protect the beneficial uses.

9. The existing and potential beneficial uses of the various surface waters that could be impacted by the discharge of dairy wastes in the Santa Ana Region include one or more of the following:

   a. Municipal and Domestic Supply,
   b. Agricultural Supply,
   c. Industrial Service Supply,
   d. Industrial Process Supply,
   e. Groundwater Recharge,
   f. Hydropower Generation,
   g. Water Contact Recreation,
   h. Non-contact Water Recreation,
   i. Warm Freshwater Habitat,
   j. Limited Warm Freshwater Habitat,

k. Cold Freshwater Habitat,
l. Preservation of Biological Habitats of Special Significance,
m. Wildlife Habitat,
n. Marine Habitat,
o. Shellfish Harvesting,
p. Estuarine Habitat,
q. Rare, Threatened or Endangered Species, and
r. Spawning, Reproduction, and Development.

10. The existing and potential beneficial uses of groundwater that could be impacted by the discharge of dairy wastes within the Santa Ana Region include one or more of the following:

a. Municipal and Domestic Supply,
b. Agricultural Supply,
c. Industrial Service Supply, and
d. Industrial Process Supply

11. On January 22, 2004, the Regional Board adopted Resolution No. R8-2004-0001 which amended the existing Basin Plan for the Santa Ana River Basin. The amendments to the Basin Plan will become effective upon approval by the Office of Administrative Law (OAL) and USEPA (expected by December 2004). The amendments incorporate an updated Total Dissolved Solids (TDS) and Nitrogen Management Plan for the Santa Ana Region, which include revised groundwater subbasin boundaries (groundwater management zones), revised TDS and nitrate-nitrogen quality objectives for groundwater, and revised TDS and nitrogen wasteload allocations, revised reach designations, TDS and nitrogen objectives and beneficial uses for specific surface waters.

12. Revised regulations governing discharges from CAFOs, including dairies, are contained in Division 2, Title 27 of the Combined State Water Resources Control Board/California Integrated Waste Management Board AB 1220 Regulations, which became effective on July 18, 1997. Chapter 7, Subchapter 2 (Article 1) contains requirements for Confined Animal Facilities. Previously, these regulations were specified in Chapter 15, Division 3, Article 6, Title 23 of the California Code of Regulations.

13. Section 402(p) of the CWA as amended by the Water Quality Act of 1987 and the related regulations published by the USEPA on November 16, 1990 (40 CFR Parts 122, 123 and 124), requires a NPDES permit for pollutant discharges from CAFOs. The USEPA's Effluent Guidelines and Standards for CAFOs are contained in 40 CFR Part 412 (revised February 12, 2003).

14. Wastes from CAFOs contain high concentrations of salts (total dissolved solids, including nitrates). The application of manure or the discharge of process wastewater[1] to land results in the discharge of salts that has adversely impacted, and continues to adversely impact, the quality of groundwater and surface water in the Region.

15. Most of the CAFOs in the Region overlie the Chino North Groundwater Management Zone and several groundwater management zones in the San Jacinto River Basin. All of these groundwater management zones lack assimilative capacity for TDS and nitrate-nitrogen discharges from CAFOs.

16. For groundwater management zones without assimilative capacity, salt inputs that exceed the water quality objectives for these management zones cannot be allowed (State Water Resources Control Board Order No. 73-4, the Rancho Caballero decision). To meet the water quality objectives in the Chino North Groundwater Management Zone and the groundwater management zones in the San Jacinto River Basin, the discharge of manure and other animal wastes, such as process wastewater, and their application as fertilizer and irrigation water, must be controlled to prevent further exceedance of water quality objectives. Salt discharges in excess of water quality objectives can only be allowed if the impacts of additional salt inputs are offset.

17. The Chino I Desalter, located in the Chino Basin, began operation in August 2000. The Chino I Desalter produces about 8 million gallons per day (mgd) of product water and is removing an average of about 14,500 tons of salt per year from the Chino Basin. Kaiser Steel is receiving credit for 4,000 tons of this salt per year as an offset for past salt discharges to the Chino Basin. The remainder of the salt being removed by the Chino I Desalter (about 10,500 tons per year) has been allocated to offset salt loads resulting from ongoing discharges of dairy process wastewater, including the percolation of rainfall runoff from corrals and rainfall runoff from temporary manure stockpiles. Therefore, the discharge of process wastewater to land within the Chino Basin can continue.

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[1] *Process wastewater means water directly or indirectly used in the operation of the AFO for any or all of the following: spillage or overflow from animal or poultry watering systems; washing, cleaning, or flushing pens, barns, manure pits, or other AFO facilities; direct contact swimming, washing, or spray cooling of animals; or dust control. Process wastewater also includes any water which comes into contact with any raw materials, products, or byproducts including manure, litter, feed, milk, eggs or bedding.*

18. No offset program is in place, nor has yet been proposed, to offset the salt contained in ongoing discharges of manure and process wastewater from CAFOs to groundwater management zones not having assimilative capacity in the San Jacinto River Basin. Therefore, the discharge of manure and other animal wastes, such as process wastewater, and the application of manure as fertilizer and irrigation water from existing CAFOs in the San Jacinto Basin cannot be allowed.

19. Discharges of storm water from the dairies within this Region may impact the Santa Ana River, Reach 3, Chino Creek, Cucamonga Creek/Mill Creek, Lake Elsinore and Canyon Lake. These surface waters are listed as impaired in accordance with provisions of Section 303(d) of the CWA. Canyon Lake is impaired due to pathogens and nutrients, Lake Elsinore is impaired due to nutrients, toxic constituents and sediment, the Santa Ana River, Reach 3, is impaired due to pathogens, and Chino Creek and Cucamonga/Mill Creek are impaired due to pathogens and nutrients. Federal regulations require that a total maximum daily load (TMDL) be established for 303(d) listed waterbodies for each pollutant of concern. Waste discharges cannot cause or contribute to water quality or beneficial use impairment. With respect to the potential discharges from CAFOs, the pollutants of concern are nutrients and pathogens.

    The nutrient TMDLs for Canyon Lake and Lake Elsinore and the pathogen TMDLs for the Santa Ana River, Reach 3, Chino Creek and Cucamonga Creek/Mill Creek are scheduled for Regional Board approval in late 2004. The Canyon Lake pathogen TMDL is scheduled for Regional Board approval in early 2005. Cucamonga Creek/Mill Creek nutrient TMDLs are scheduled for Regional Board approval in 2011. These TMDLs, will specify wasteload and load allocations for all significant sources of pollutants causing impairment. This is expected to include wasteload allocations for CAFOs within this Region. These TMDLs will also specify an appropriate implementation plan that may include provisions for offset or pollutant trading. Therefore, this Order will be reopened to include requirements necessary to implement the adopted TMDLs.

20. For coverage under this general permit, a discharger must submit a completed Notice of Intent form (NOI) (see Attachment "A" of this Order) together with other information required in Section F. "APPLICATION REQUIREMENTS," and receive discharge authorization from the Executive Officer. If the proposed discharge meets the requirements of this general permit, the Executive Officer will provide the discharger with a written authorization to initiate the discharge. If not, an individual NPDES permit will be developed for consideration by the Regional Board.

21. The Executive Officer of the Regional Board or the Regional Administrator of the USEPA may require any person authorized to discharge wastes by this general permit to

subsequently apply for and obtain an individual NPDES permit. Any interested person may petition the Executive Officer or the Regional Administrator to take action in accordance with this finding. Cases where an individual NPDES permit may be required include the following:

a. The discharger is not in compliance with the conditions of this Order or the discharge authorization letter from the Executive Officer;

b. Effluent limitation guidelines are promulgated for point sources covered by the general NPDES permit;

c. Changes to the Basin Plan containing requirements applicable to such point sources are approved;

d. The requirements of 40 CFR 122.28(a) are not met; or

e. The discharge may adversely affect the water quality objectives of the receiving water.

22. The Regional Board recognizes the need to consider any unique factors relating to a discharger. In order to address any unique factors applicable to a particular discharger or discharge, it may be necessary for the discharger to apply for an individual NPDES permit in accordance with Section 13376 of the California Water Code.

23. On June 8, 1989, pursuant to 40 CFR 122.28, the State Water Resources Control Board (hereinafter, State Board), applied to the USEPA for revisions of its NPDES program in accordance with 40 CFR 123.62 and 403.10. The application included a request to add general permit authority to its approved NPDES program. On September 22, 1989, USEPA, Region IX, approved the State Board's request and granted authorization for the State's issuance of general NPDES permits.

24. The Regional Board has considered antidegradation pursuant to 40 CFR 131.12 and State Board Resolution No. 68-16, and finds that these discharges are consistent with the State and Federal regulations, as long as appropriate salt offset programs are implemented.

25. In accordance with Water Code Section 13389, the issuance of waste discharge requirements for these discharges is exempt from those provisions of the California Environmental Quality Act contained in Chapter 3 (Commencing with Section 21100), Division 13 of the Public Resources Code.

26. The Regional Board has notified interested agencies and persons of its intent to issue general waste discharge requirements for discharges of wastes from CAFOs, and has provided them with an opportunity to submit their views and recommendations.

27. The Regional Board, in a public meeting, heard and considered all comments pertaining to discharges of wastes from CAFOs proposed to be regulated under the general waste discharge requirements.

IT IS HEREBY ORDERED that, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and the provisions of the Clean Water Act as amended, and regulations and guidelines adopted thereunder, dischargers, their agents, successors, and assigns, discharging wastes from CAFOs shall comply with the following:

A. DISCHARGE SPECIFICATIONS:

1. The discharger shall design, construct and maintain containment structures to retain all wastewater within their facilities, including all process wastewater and all precipitation on, and drainage through, manured areas resulting from rainfall up to and including a 25-year, 24-hour rainfall event.

2. The discharger shall develop and fully implement an Engineered Waste Management Plan (EMWP) acceptable to the Executive Officer and prepared in accordance with the Guidelines for the Development of Engineered Waste Management Plans for Concentrated Animal Feeding Operations (Dairies and Related Facilities), February 2001 (see Attachment "B" of this Order). The EMWP shall be developed by a registered professional engineer, or other qualified individual. The Executive Officer is hereby authorized to make necessary revisions to the guidelines for the preparation of an EWMP outlined in Attachment "B". Upon completion of the EWMP implementation, the discharger shall submit a certification from the engineer who prepared the EWMP that all facilities have been constructed as specified in the EWMP.

3. Whenever precipitation causes an overflow of manure, litter, or process wastewater, pollutants in the overflow may be discharged into U.S. waters provided:

   a. The production area[2] is designed, constructed, operated and maintained to contain all manure, litter, and process wastewater including the runoff and the direct precipitation from a 25-year, 24-hour rainfall event; and

   b. The production area is operated in accordance with the following measures and records as required by 40 CFR 412.37(a) and (b):

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[2] *Production area means that part of an AFO that includes the animal confinement area, the manure storage area, the raw materials storage area, and the waste confinement areas.*

1) All inspection records shall be maintained in accordance with the requirements specified in section A.1. of Monitoring and Reporting Program No. R8-2004-0055.

2) All open surface liquid impoundments shall have a depth marker that clearly indicates the minimum capacity necessary to contain the runoff and direct precipitation of the 25-year, 24-hour rainfall event.

3) Any deficiencies found as a result of the routine inspections shall be corrected as soon as possible.

4) Mortalities shall not be disposed of in any liquid manure or process wastewater system, and shall be handled in such a way as to prevent the discharge of pollutants to surface water.

4. Retention ponds and manured areas at CAFOs in operation on November 27, 1984, shall be protected from inundation or washout by overflow from any stream channel during 20-year peak stream flows. Facilities existing before November 27, 1984 that are protected against 100-year peak stream flows shall continue to provide such protection. New facilities (built after November 27, 1984) shall be protected from 100-year peak stream flows.

5. No containment structures shall be constructed of manure, and manure shall not be used to improve or raise existing containment structures.

6. Disposal of manure to land is prohibited, unless allowed by separate waste discharge requirements issued by the Regional Board.

7. Manure applied to cultivated cropland outside of any area that may affect a groundwater management zone lacking assimilative capacity shall not exceed agronomic rates and shall be incorporated into soil immediately after application, or appropriate containment controls (based upon the specific crop grown) shall be provided. For any application of manure to cropland in excess of 12 dry tons per acre per year (or 17.5 tons per acre per year @ 33% moisture), an explanation of the type of crop and the number of times it is harvested per year shall also be included in an annual report.

8. Manure, litter, and process wastewater shall not be applied closer than 100 feet to any down-gradient surface waters, open tile line intake structures, sinkholes, agricultural well heads, or other conduits to surface or ground waters.

9. Manure removed from the corrals shall be removed from the facility within 180 days. Any manure remaining at the facility after 180 days of being removed from the corrals is considered to be disposal of manure and is prohibited in accordance with Discharge

Specification A.6. A manifest of the manure hauled away shall be prepared and submitted with an annual report in accordance with Monitoring and Reporting Program No. R8-2004-0055. The discharger shall be responsible for active management of legal disposal of manure from the property over the six month period following removal of the manure from corrals. This means that legal disposal must be coordinated with periods of rainfall such that manure can be removed from the facility within 180 days of being scraped from corrals.

10. On two designated "clean days" per calendar year, facilities subject to this Order shall be free of all stockpiled manure that has been removed from corrals. The two "clean days" shall be at least four months apart. Each "clean day" shall be identified and reported to the Regional Board office at least five working days in advance of the selected date.

11. Mortalities (dead animals) shall be handled in accordance with the requirements specified in Discharge Specification A.3(b)(4).

12. All surface drainage from outside of the facility (such as, but not limited to, from streets or neighboring property) shall be diverted away from any manured areas. In the case that this drainage comes in contact with any manured areas, it shall be fully contained on site.

13. Chemicals and other contaminants handled on-site shall not be disposed of in any manure, litter, process wastewater, or storm water storage or treatment system unless specifically designed to treat such chemicals and other contaminants.

14. Upon ceasing operation at the facility, the discharger shall demonstrate to the satisfaction of the Executive Officer that there is no remaining potential for a discharge of manure, litter or associated process wastewater that was generated while the operation was a CAFO, other than agricultural storm water from land application areas.

B. PROHIBITIONS

1. The discharge of process wastewater to property not owned or controlled by the discharger, except as authorized by this Order, is prohibited.

2. The application of manure, including the use of manure as a fertilizer, in any area that may affect a groundwater management zone lacking assimilative capacity is prohibited unless a plan, acceptable to the Executive Officer, is implemented which offsets the effects of that use on the underlying groundwater management zone.

3. All animals within a CAFO facility shall be prohibited from having direct contact with waters of the United States.

4. The discharge of any substances in concentrations toxic to animal or plant life is prohibited.

C. PROVISIONS:

1. The discharger shall comply with Monitoring and Reporting Program No. R8-2004-0055.

2. Neither the treatment nor the discharge of wastes shall create, or threaten to create, a nuisance or pollution as defined by Section 13050 of the California Water Code.

3. This Order shall serve as a general NPDES permit pursuant to Section 402 of the Federal CWA or amendments thereto. The general permit shall become effective 10 days after the date of its adoption provided the Regional Administrator of the USEPA has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

4. This Order expires on December 17, 2009. However, coverage under the permit shall continue in force and effect until a new Order is issued for those dischargers who are authorized to discharge under the terms and conditions of the Order, and who submit a renewal application at least 180 days prior to the December 17, 2009 expiration date.

5. Order No. 99-11 is hereby rescinded.

6. The Executive Officer shall determine whether the proposed discharge is eligible for coverage under this general permit, after which, the Executive Officer may;

   a. Authorize the proposed discharge by transmitting a discharge authorization letter to the discharge proponent (now an "authorized discharger") authorizing the discharge under the conditions of this Order and any other conditions consistent with this Order that are necessary to protect the beneficial uses of the receiving waters; or,
   b. Require the discharge proponent to obtain an individual NPDES permit prior to any discharge to surface waters within the Santa Ana Region.

7. All discharges from the facility shall comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies regarding discharges of storm water to storm drain systems or other courses under their jurisdiction.

8. The discharger shall comply with all Federal, State, County and local laws and regulations pertaining to the discharge of wastes from the facility.

9. The discharger shall cease the use of manure as a fertilizer in the San Jacinto River Basin unless a plan acceptable to the Executive Officer to offset the impacts of any manure applied as a fertilizer has been implemented. Compliance with this Provision shall be achieved in accordance with the following time schedule:

Task	Compliance Date
• Submit a conceptual Work Plan to offset the impacts of manure applied as fertilizer in the San Jacinto River Basin	June 17, 2005
• Submit a final Work Plan and proposed time schedule for approval by the Executive Officer	Three months following the Executive Officer's written acceptance of the conceptual Work Plan
• Implement the final Work Plan in accordance with the time schedule approved by the Executive Officer	Three months following the Executive Officer's written acceptance of the final Work Plan and proposed time schedule
• Cease land application of manure except as noted in an offset approved by the Executive Officer	December 17, 2007

10. The discharger shall take all reasonable steps to minimize or prevent any discharge that has a reasonable likelihood of adversely affecting human health or the environment

11. Following a storm event, the discharger shall restore the wastewater holding capacity of retention ponds in a timely manner.

12. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, nor protect the discharger from liabilities under Federal, State, or local laws, nor guarantee the discharger a capacity right in the receiving waters.

13. This Order does not convey any property rights of any sort, or any exclusive privilege.

14. An authorization to discharge wastes under this Order is not transferable to any person without written authorization from the Executive Officer.

15. The discharger shall comply with all requirements of this Order and, in addition, all terms, conditions, and limitations specified in the discharge authorization letter issued by the Executive Officer.

16. Any permit noncompliance constitutes a violation of the CWA and the California Water Code and is grounds for enforcement action; for permit or authorization letter termination, revocation and reissuance, or modification; for the issuance of an individual permit; or for denial of a renewal application.

17. The provisions of this Order are severable, and if any provision of this Order, or the application of any provisions of this Order to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Order shall not be affected thereby.

18. It shall not be a defense for a discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order.

19. Compliance determination with the terms of this Order shall be based on the following:

    a. Periodic inspections by Regional Board staff;
    b. Evaluation of the Annual Report of Animal Waste Discharge and Annual Summary Report of CAFO Storm Water Management Structure Inspections submitted according to the attached monitoring and reporting program; and
    c. Any other information deemed necessary by the Executive Officer.

20. The Regional Board, USEPA, and other authorized representatives shall be allowed:

    a. Entry upon premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this general permit;
    b. Access to copy any records that are kept under the conditions of this general permit or pertaining to the permitted business activity;
    c. To inspect any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this general permit; and
    d. To photograph, sample, and monitor for the purpose of assuring compliance with this general permit, or as otherwise authorized by the CWA.

C. PERMIT REOPENING, REVISION, REVOCATION, AND RE-ISSUANCE:

1. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal CWA, or amendments thereto, the Regional Board will revise and modify this Order in accordance with such standards.

2. This Order may be reopened to address any changes in State or Federal plans, policies or regulations that would affect the quality requirements for the discharges.

3. This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by a discharger for modification, revocation and reissuance, or termination of this Order or a notification of a planned changes or anticipated noncompliance does not stay any permit condition.

D. PENALTIES:

1. The CWA provides that any person who violates a provision implementing sections 301, 302, 306, 307, or 308 of the CWA is subject to a civil penalty not to exceed $11,000 per day of such violation. Any person who willfully or negligently violates provisions implementing these sections of the CWA is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than 1 year, or by both.

2. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than $11,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

3. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $11,000 per violation, or by imprisonment for not more than six months per violation, or by both.

4. The California Water Code provides that any person who violates a waste discharge requirement or a provision of the California Water Code is subject to civil penalties of up to $5,000 per day, $10,000 per day, or $25,000 per day of violation, or when the violation involves the discharge of pollutants, is subject to civil penalties of up to $10 per gallon per day, or $20 per gallon per day of violation; or some combination thereof, depending on the violation, or upon the combination of violations.

E. REQUIRED REPORTS AND NOTICES:

1. Reporting Provisions:

   a. All applications, annual reports, or information submitted to the Regional Board shall be signed and certified in accordance with 40 CFR 122.22.

   b. Any discharger authorized to discharge wastes under this Order shall furnish, within a reasonable time, any information the Regional Board or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating their authorization or this general permit. The discharger shall also furnish to the Regional Board, upon request, copies of records required to be kept by this Order.

   c. Except for data determined to be confidential under Section 308 of the CWA, all reports prepared in accordance with the terms of this general permit shall be available for public inspection at the offices of the Regional Water Quality Control Board and the Regional Administrator of the USEPA. As required by the CWA, effluent data shall not be considered confidential. Knowingly making any false statements on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the CWA and Section 13387 of the California Water Code.

2. The discharger shall notify the Regional Board by telephone within 24 hours of any unauthorized discharge of wastes from the facility. This notification shall be followed by a written report including the following:

   a. The approximate date and time of the discharge;
   b. The volume and duration of the discharge;
   c. The cause of the discharge; and
   d. A time schedule and a plan to implement necessary corrective actions to prevent the recurrence of such discharges.

3. The discharger shall report promptly in writing to the Regional Board of any changes or proposed changes in:

   a. The control, ownership, operation or location of the facility;
   b. The character, location, volume or disposal methods of waste discharges; and
   c. The size of the animal population, if it increases beyond the design capacity of the facility specified in the EWMP.

4. The discharger shall give advance notice to the Regional Board of any planned changes in the permitted facility or activity that may result in noncompliance with this general permit.

F. APPLICATION REQUIREMENTS:

1. Dischargers previously authorized to discharge wastes under Order No. 99-11 are automatically enrolled under this Order, unless they file an application to be covered under an individual permit.

2. Dischargers who have submitted a NOI to discharge wastes, under Order No. 99-11, but have not received an authorization to discharge those wastes, will be covered under Order No. R8-2004-0055 upon receipt of the authorization by the Executive Officer.

3. Dischargers not previously authorized to discharge wastes under Order No. 99-11 are required to submit the following within 60 days of the effective date of this Order for existing discharges and at least 60 days before the start of any new discharge:

   a. A completed NOI Form (see attachment "A" of this Order) with the appropriate filing fee;
   b. An EWMP for the facility, acceptable to the Executive Officer and prepared in accordance with the Guidelines for the Development of Engineered Waste Management Plans for Concentrated Animal Feeding Operations (Dairies and Related Facilities), February 2001 (see Attachment "B" of this Order);
   c. If an acceptable EWMP has not been developed or an accepted EWMP is not consistent with the dairy operation, the discharger must submit the name of the engineer, or other qualified individual, who will develop the EWMP, and a draft, or revised, EWMP within 90 days from the Executive Officer's authorization to discharge; and
   d. Any other information deemed necessary by the Executive Officer.

   If the proposed discharge meets the requirements of this Order, the Executive Officer will provide the discharger with a written authorization to discharge wastes in accordance with these waste discharge requirements.

4. The following types of facilities are generally not required to obtain authorization under this Order. Such facilities must not discharge wastes which may affect water quality, or cause a nuisance or pollution as defined in Section 13050 of the California Water Code.

   a. Dairies where the animal population is less than 20 (dry or milking cows).

b. Heifer or calf ranches where the herd size is less than 50.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on December 17, 2004.

Gerard J. Thibeault
Executive Officer

California Regional Water Quality Control Board
Santa Ana Region

Monitoring and Reporting Program No. R8-2004-0055
for
General Waste Discharge Requirements For Concentrated Animal Feeding Operations (Dairies and Related Facilities) Within The Santa Ana Region, NPDES No. CAG018001

A. Monitoring

1. The discharger shall record, on the form provided, maintain for five years, and make available to Regional Board staff or the Regional Administrator of the USEPA, upon request, the following monitoring information. If sufficient space is not available on the form provided, the discharger shall provide supplemental attachment sheets, as needed.

    a. Document the routine visual inspections of the CAFO waste containment areas (on Attachment F). All containment structures, including, but not limited to, ponds, berms, and wastewater distribution lines, shall be inspected at least once each week during the entire year and at least once each 24-hour period during a storm event in which rainfall exceeds 0.5 inches in 24 hours.

    b. Document depth of the process wastewater and storm water runoff in the containment ponds and impoundments weekly. An estimate of the freeboard[1] for each pond or impoundment shall be recorded during each inspection. A marker shall be placed within each pond or impoundment to indicate the minimum capacity necessary to contain the runoff and direct precipitation of the 25-year, 24-hour rainfall event.

    c. Document any action taken to correct deficiencies noted as a result of facility inspections. Deficiencies not corrected within 30 days shall be accompanied by an explanation of the factors preventing immediate correction.

    d. Document mortality management practices used by the CAFO that are consistent with Discharge Specification A.3(b)(4) of the permit.

    e. Document the approximate time of each storm-related discharge that results in an off-property discharge of storm water commingled with process wastewater or manure, along with its approximate duration.

2. The discharger(s) shall record each manure-hauling event on a Manure Tracking Manifest Form (Attachment D).

3. A copy of the accepted Engineered Waste Management Plan (EWMP) for the facility shall be maintained on site and the person in charge of the dairy operation shall be

[1] *Freeboard of a pond or impoundment is the vertical separation between the liquid level and the lowest elevation of the containment or impoundment at which allows an overflow or outflow from the pond or impoundment.*

familiar with its content. The EWMP shall be made available to Regional Board staff or the Regional Administrator of the USEPA, upon request.

B. Reporting

1. By January 15 of each year, an Annual Report Of Animal Waste Discharge (Attachment C), Manure Tracking Manifest(s) (Attachment D), and Annual Summary Report of CAFO Storm Water Management Structure Inspections (Attachment E) shall be submitted.

2. The Annual Report, Manure Tracking Manifest(s), and Annual Summary Report of CAFO Storm Water Management Structure Inspections shall be submitted on forms provided by Regional Board staff, and the Annual Report shall also include copies of all completed and signed manure tracking manifests for the reporting period.

3. The discharger shall notify the Regional Board by telephone within 24 hours of any unauthorized discharge of wastes. This notification shall be followed by a written report which shall be submitted to the Regional Board within two weeks of the discharge. The written report shall contain:

   a. The approximate date and time of the discharge;

   b. The estimated flow rate and duration of the discharge;

   c. The specific type and source of the waste discharges (e.g., overflow from holding pond, rainfall runoff from manure storage areas, etc.); and

   d. A time schedule and a plan to implement necessary corrective actions to prevent the recurrence of the discharge.

All reports shall be signed by a responsible officer or duly authorized representative of the discharger(s) and shall be submitted under penalty of perjury.

Ordered by _____
Gerard J. Thibeault
Executive Officer

December 17, 2004

California Regional Water Quality Control Board
Santa Ana Region

NOTICE OF INTENT

TO COMPLY WITH THE TERMS OF THE GENERAL PERMIT TO DISCHARGE WASTES ASSOCIATED WITH CONCENTRATED ANIMAL FEEDING OPERATIONS (DAIRIES AND RELATED FACILITIES)

FACILITY

NAME AND ADDRESS OF FACILITY

CONTACT PERSON

TELEPHONE NO.

NAME AND ADDRESS OF LEGAL OWNER OF FACILITY

CONTACT PERSON

TELEPHONE NO.

NAME OF BUSINESS OPERATING FACILITY

TELEPHONE NO.

ANIMAL POPULATION

1. DAIRY

_____ MILKING COWS

_____ DRY COWS

_____ HEIFERS

_____ CALVES

2. CALF/HEIFER RANCH

_____ CALVES

_____ HEIFERS

3. OTHER CAFO ANIMALS
(IDENTIFY TYPE AND NUMBER OF ANIMALS)

TYPE _____ NO. _____

TYPE _____ NO. _____

TYPE _____ NO. _____

FACILITY INFORMATION

_____ TOTAL ACREAGE[1]

_____ CROP LAND[1] (ACRES)

_____ CORRALS[1] (ACRES)

_____ CONTAINMENT PONDS[1] (ACRES)

HAS AN ENGINEERED WASTE MANAGEMENT PLAN BEEN PREPARED? ____ YES ____ NO CERTIFIED? ____ YES ____ NO

CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

SIGNATURE OF OWNER OF FACILITY

SIGNATURE OF OPERATOR OF FACILITY

PRINT OR TYPE NAME

PRINT OR TYPE NAME

TITLE AND DATE

TITLE AND DATE

[1] *See Engineered Waste Management Plan,*

Guidelines for the Development of Engineered Waste Management Plans for Concentrated Animal Feeding Operations

(Dairies and Related Facilities)

California Regional Water Quality Control Board
Santa Ana Region

February 2001

ATTACHMENT B (ORDER NO. R8-2004-0055)

Introduction

On August 20, 1999, the California Regional Water Quality Control Board, Santa Ana Region (Board), adopted Order No. 99-11 (NPDES No. CAG018001), General Waste Discharge Requirements for Concentrated Animal Feeding Operations (Dairies and Related Facilities) in the Santa Ana Region. This order required all operators of dairies and related facilities (i.e., heifer ranches and calf nurseries) authorized to discharge wastes under Order No. 99-11 to develop and implement an engineered waste management plan (EWMP). The primary purpose of an EWMP is to provide a wastewater management system that is designed, constructed, operated and maintained to comply with the wastewater containment requirements in Order No. 99-11. Order No. 99-11 includes applicable state and federal regulations that address waste discharges from animal feeding operations.

Background

The Board began issuing waste discharge requirements to all animal feeding operations in the Region in 1972. These waste discharge requirements stated that each facility had to contain, on the property, all wastewater (i.e., dairy wash water, storm water runoff from manured areas, etc.), including the storm water runoff from a 24-hour, 25-year storm. In an attempt to comply with this requirement, many facilities constructed new ponds, enlarged existing ponds, constructed berms, and implemented other measures. However, these measures were generally implemented in a piecemeal fashion, usually on an as-needed basis, and often did not integrate well with other wastewater containment measures at the facility. It became more and more apparent that many of the wastewater containment improvements that were being made were not very effective. For example, ponds were not sized properly, and, therefore, did not have sufficient capacity to contain the entire volume of wastewater generated at the site; berms were sized and constructed improperly, resulting in failures; wastewater pumps, pipelines, etc., were often inoperable and were not replaced when needed; and most wastewater containment structures and equipment were often in a state of disrepair. All of these situations resulted in frequent discharges of wastewater to surface waters, primarily during the winter.

To minimize discharges to surface waters, it became apparent that an overall plan for containing wastewater was necessary. In the late 1980's, Board staff prepared a two-page document that provided guidelines for preparing an EWMP. An EWMP was then generally requested from animal feeding operations that had a history of recurring wastewater discharges. In 1994, the Board adopted Order No. 94-7 (NPDES No. CAG018001), General Waste Discharge Requirements for Concentrated Animal Feeding Operations (CAFOs). Order No. 94-7 required that, in addition to an EWMP being required from CAFOs that had a history of recurring wastewater discharges, EWMPs were to be prepared by anyone initiating a new CAFO at either a new or existing facility. The guidelines for preparing an EWMP were then included as an attachment to Order No.

94-7. Order No. 94-7 expired in March 1999, and the Board adopted Order No. 99-11 in August 1999. To assure that every CAFO had a wastewater management system capable of complying with wastewater containment requirements, Order No. 99-11 required that all CAFO operators develop and fully implement an EWMP. The existing guidelines for preparing an EWMP were included as an attachment to Order No. 99-11. However, the existing EWMP guidelines were outdated, general in nature, and did not contain sufficient criteria to comply with the wastewater containment requirements in Order No. 99-11. Therefore, Order No. 99-11 authorized the Executive Officer to make necessary revisions to the guidelines.

These revised guidelines are longer than the previous guidelines. This is primarily the result of adding explanations and clarification to make EWMPs prepared in accordance with the guidelines as consistent as possible. There are two significant differences between these guidelines and the previous guidelines. First, the new guidelines outline criteria for determining the storage capacity necessary to comply with waste discharge requirements. These criteria will result in the need for significantly more storage capacity than the criteria included in the previous guidelines. However, this does not reflect a change in state or federal regulations. Instead, previous guidelines did not accurately specify criteria for determining the storage capacity necessary to comply with state and federal regulations. Regardless of what was included in previous guidelines, CAFOs have always been, and still are, required to comply with all applicable state and federal regulations. Second, the new guidelines identify several items (such as best management practices) that should be considered in the development and implementation of EWMPs. Many of these items have been included in EWMPs approved by the Executive Officer in the past.

Purpose

The purpose of an EWMP is to provide a wastewater management system that is designed, constructed, operated and maintained to comply with the wastewater containment requirements in Order No. 99-11. These guidelines do not address the management, application or disposal of manure removed from the corrals. Compliance with waste discharge requirements associated with the discharge of manure removed from corrals is addressed separately. The development and implementation of an EWMP is required by Order No. 99-11. Discharges of wastewater from a CAFO are allowed only if the CAFO operator has constructed and maintained containment structures as required, and if a chronic or catastrophic rainfall event occurs. A chronic rainfall event is a series of wet weather conditions that would total the volume of the 24-hour, 25-year storm event, and would not provide reasonable opportunity for dewatering containment structures prior to the next storm events. A catastrophic storm event includes events such as tornadoes and hurricanes, and any single event that totals the runoff volume of the 24-hour, 25-year storm event. Order No. 99-11 requires that an EWMP be developed in accordance with guidelines established by the Executive Officer. However, these are guidelines, not regulations, and any EWMP that will result in compliance with waste discharge requirements will be acceptable by the Executive Officer. Adhering to these

guidelines, though, will provide consistency for preparing EWMPs, and will increase the likelihood that the EWMP will be acceptable.

Elements of an EWMP

The EWMP must be prepared by a registered engineer (civil, or other appropriate discipline) or other qualified person (required by Order No. 99-11). The qualified person preparing the EWMP must have the knowledge, technical expertise and experience appropriate to develop an EWMP. This guidance document describes five basic elements that should be addressed in an EWMP. These elements include an introduction, a design, a plot (site) plan, construction specifications, and an operation and management plan. These elements should include a detailed description, as follows:

I. Introduction

The introduction should describe the existing animal population, the design population for the EWMP, existing wastewater containment facilities, and the operation of those facilities. At a minimum, the Introduction should consist of a brief narrative that addresses the following:

- the facility address, operator name, land owner, and location of the facility with respect to cross streets or other landmarks
- the name, telephone number and address of the person responsible for implementing the EWMP on an on-going basis (CAFO operator or other designated person)
- the name, telephone number and address of the person(s) to be contacted, if necessary, in the event that the CAFO operator or designated person is not available.
- current and design animal population (for the expected life of the CAFO)
- the estimated volume of wash water generated at the facility each day (based on gallons per cow per day)
- total size of the facility (acres)
- the size (acres) of existing ponds, corrals, wastewater disposal areas and wastewater containment areas
- general location and height of berms
- how dairy wastewater is managed and where it is discharged
- storm water run-on problems (storm water that occurs off-site, but enters the CAFO), including run-on from neighboring facilities, etc.

II. Design

To comply with Order No. 99-11, containment facilities must be designed to contain all wastewater generated at the facility (i.e., dairy wash water, storm water runoff from manured areas, etc.) and all storm water runoff that comes into contact with manure generated by a 24-hour, 25-year storm. A 24-hour, 25-year storm is a 24-hour storm with

a return frequency of once every 25 years. The design must take into consideration that this storm can and should be expected to occur each year. CAFOs are required to contain the storm water runoff from all lesser storms, if that runoff has come into contact with manure.

If a CAFO does not have existing structures capable of containing the required volume of wastewater, then additional structures must be provided. This may include significantly deepening existing ponds, adding additional ponds, connecting to a sewer system, raising berms to increase the volume of wastewater that can be stored in containment areas, etc. An EWMP may be acceptable if the design has maximized the amount of wastewater that can be contained and the operation and management plan optimizes utilization of the containment capacity provided by the containment structures. **However, acceptance of such a plan will not relieve the CAFO operator of responsibility for any discharges that are not allowed by Order No. 99-11. Wastewater that is discharged off the CAFO property, even after implementing an acceptable EWMP, is still a violation of Order No. 99-11, unless the discharge occurred as a result of a chronic or catastrophic storm event.**

- Historically, containment of wash water and storm water runoff at CAFOs in the Region between the drier months of April through October has not been a problem. However, containing storm water runoff from corrals, wastewater disposal fields, etc., and daily wash water, has been problematic during the five generally wet months of November through March. During these months, evaporation is minimal, and since disposal fields are usually saturated by rainfall, percolation is minimal. Since it is difficult to dispose of daily wash water and accumulated storm water runoff during these months, wastewater facilities should be designed to contain all wastewater generated during this 150-day period, as noted below.

- Containment structures should be designed to contain 150 days of annual storm water runoff and the runoff from a 24-hour, 25-year storm. For the Chino Basin area, average rainfall for the 150 days from November through March is approximately 13 inches, and a 24-hour, 25-year storm generates approximately 4.5 inches of precipitation (based on information from the National Weather Service). For the San Jacinto area, average annual rainfall for the 150 days from November through March is approximately 11 inches, and a 24-hour, 25-year storm is approximately 3.5 inches. These are average values for these areas, and other values can be used for a particular CAFO, if justification is provided.

- Containment structures should be designed to contain 150 days of wash water. This should be based on the maximum number of milking cows for the life of the facility. Otherwise, the EWMP may have to be revised in the future, at such time that the number of milking cows exceeds the number of cows stated in the EWMP. Recent studies have shown that the average daily wash water generated at dairies in the Region is about 70 gal/cow/day (based on two milkings/cow/day). The average daily wash water produced during winter months, however, can exceed 100/gal/cow/day. The average gal/cow/day used during the winter should be used in determining the

volume of storage required for wash water. This volume can vary, depending on specific site practices, but should be about 100 gal/cow/day unless adequate justification is provided for using a smaller number. The installation of a water meter can verify the amount of water used and assist in efforts to conserve water usage, and thereby reduce the amount of water discharged to containment structures. A wash water meter will be required to justify a volume significantly less than 100 gal/cow/day.

- During the winter, evaporation is minimal. Also, ponds tend to seal up over time, and disposal fields are generally saturated during the winter, thereby minimizing percolation. In addition, the amount of wastewater percolated during the winter at a CAFO can vary, depending on the particular wastewater disposal practices implemented at that CAFO. Allowances for loss of wastewater due to percolation and evaporation can be made in determining the amount of storage required for wastewater, as long as reasonable assumptions are made that consider winter conditions and practical CAFO specific wastewater disposal practices.

- The accumulation of solids in ponds and other containment structures decreases the storage capacity available for wastewater. It is estimated that dairy wash water in the Region contains about 10% of the manure generated by a milking cow. Also, solids are present in storm water runoff from corrals, disposal land and other areas. The estimated annual decrease in available storage capacity resulting from the accumulation of these solids should be determined (the volume of manure in wash water can be considered to be 10% of what a milking cow expels).

- Calculations should be provided showing the design capacity of all wastewater containment structures (existing and proposed).

- The total capacity of the containment structures should be at least equal to the volume determined by the following equation: 150 days dairy wash water + 150 days annual storm water runoff + 24-hour, 25-year storm runoff + accumulation of solids + wastewater in containment structures on November 1– percolation – evaporation.

- A description of all wastewater conveyance equipment and structures (pipelines, surface channels, pumps, etc.), including their design capacities, should be provided.

- CAFOs in operation prior to November 27, 1984 must be designed to protect all manured areas from inundation or washout by overflow from any stream channel during a 20-year peak stream flow (required by Order No. 99-11).

- CAFOs built after November 27, 1984 must be designed to protect all manured areas from inundation or washout by overflow from any stream channel during a 100-year peak stream flow (required by Order No. 99-11).

- The use of pumps must be considered for ponds and other containment structures so that wastewater can be pumped from ponds or containment areas to disposal areas, in

order to restore needed capacity in the containment structures. If pumps are not utilized, exceptional justification for not utilizing pumps must be included.

- Storm water containment structures must be protected against inundation from off-site stormwater sources, unless such run-on is fully contained (required by Order No. 99-11). If it is not practical to divert all storm water run-on away from a CAFO, a justification should be included that explains why it is not practical to do so. If all storm water run-on from up to a 24-hour, 25-year storm cannot be diverted from containment structures, a description of how the design takes the run-on into consideration should be included.

- The addition of roof structures in areas where manure is present, and diverting the roof runoff off site, should be considered in order to minimize the amount of precipitation that comes into contact with manure.

- Structures should be designed to prevent storm water runoff from non-manured areas (roofs, residence area, paved surfaces, etc.) from entering wastewater containment structures. The use of rain gutters and diversion trenches should be considered. If the CAFO cannot be designed to prevent or minimize the flow of this water onto containment areas, an explanation should be provided that describes how the design accounts for such flows.

- The design for ponds and other wastewater containment areas should allow vehicle access for mosquito abatement personnel to inspect and treat these areas to reduce the risk of mosquito-borne disease and to prevent insect nuisance conditions.

- An emergency spillway must be designed to provide for a controlled release of wastewater, and to maintain the integrity of existing containment structures, in the event that storm events cause the capacity of the containment structures to be exceeded. The use of gateways, valves, or other similar devices for the purpose of manually releasing wastewater, is not acceptable.

- If visual observations, hand-level measurements and information provided by the CAFO operator and others are not sufficient to determine rise and fall dimensions and flow directions for adequately calculating runoff volumes for placing and sizing appropriate containment structures, then current contours must be determined, based on acceptable engineering and surveying practices (it is expected that current contours will be necessary for most CAFOs).

- Structures should be designed to accommodate future increases in animal population.

III. Plot (Site) Plan

The plot plan should be a standard blue line print, using an appropriate scale, that shows sufficient detail of all containment structures, drainage patterns, and equipment. The plot plan should include:

- The legal description of the property (i.e., parcel numbers), the primary address and any other addresses that may exist at the property, and the location of significant structures on the property (residences, milk barn, hay alleys, etc.).

- The property boundaries, the gross acreage of the property, vicinity map (insert), north arrow, legend and date the plan was prepared.

- The location, elevation contours and dimensions of all areas associated with the generation, storage or management of wastewater and manure (corrals, ponds, access roads around wastewater containment areas, wastewater disposal areas, temporary manure storage areas, cropland, etc.).

- The location of all facilities necessary for containment and management of wastewater (berms, upstream diversion structures, pumps, spillway, distribution lines, etc.) and the dimensions, elevation and cross-sections of all containment structures.

- The drainage patterns (indicated by arrows) for on-site surface drainage courses (swales, ditches, etc.) and any off-site surface drainage that can flow onto, or immediately adjacent to, the facility.

IV. Construction

The construction plan should describe all construction materials, construction methods (i.e., compaction), criteria and specifications, etc., necessary for proper construction of all containment and conveyance structures (berms, ponds, levees, pipelines, channels, etc.).

- Existing berms that are not sized properly, not adequately compacted, or contain materials (i.e., manure) that are deleterious to the berm's long term stability and effectiveness, must be replaced or improved to a standard that is equivalent to that which would be expected from a new berm constructed in accordance with best engineering practices.

- Actions necessary to restore existing structures to proper conditions and capacities should be clearly described (i.e., clean out existing ponds or containment areas, regrading, repair or replacement of existing berms, etc.).

- Manure shall not be used to construct new containment structures (i.e., berms), and manure shall not be used to improve or raise existing containment structures (prohibited by Order No. 99-11).

- In accordance with acceptable engineering practices, specifications developed to assure that construction material is applied in lifts of appropriate depth, and rolled and watered to achieve a minimum compaction of 90%, must be included.

V. Operation and Maintenance

An operation and maintenance plan should be provided to implement effective operation of all containment structures and equipment. During the wet season, wastewater should be managed on a daily basis to maximize the volume of containment capacity available.

- Specific procedures should be included to assure that containment structures have the maximum capacity available just prior to the wet season (November – March).

- Management practices to reduce, to the maximum extent practicable, the volume of dairy wash water generated should be addressed, particularly if the proposed structures are incapable of containing the required volume of wastewater.

- Replacement pumps should be available on-site, or advanced arrangements made for the immediate and reliable delivery of portable pumps.

- Specific procedures for operating standpipes or other conveyance systems used for applying wastewater to land should be provided to efficiently utilize the entire area available for wastewater disposal (i.e., avoid localized over-application that can occur with furrow application, and utilize methods to maximize the spreading of wastewater).

- If all storm water run-on cannot be diverted, the EWMP should contain a description of how storm water run-on will be managed or handled to minimize the impact on wastewater containment structures and to minimize the amount of wastewater that could be discharged from the CAFO.

- Specific measures to minimize the effects of gophers, squirrels or other rodents on the integrity of the containment structures should be identified.

- Removal of solids from containment structures on a scheduled basis should be specified so that the design capacity of the containment structures will be restored prior to each rain season.

- Measures for minimizing the accumulation of stagnant wastewater in low lying areas (corrals, disposal areas, etc.) and preventing potential insect nuisance conditions should be addressed.

- Weekly inspections of ponds, berms, wastewater distribution and application equipment, etc., should be specified to provide assurance that all containment structures are intact and all equipment is in proper operating condition. Daily inspections should be conducted following the first significant rain events at the beginning of the wet season (generally in early Fall), continuing through the cessation of significant rain events (generally in early Spring). Provisions for the immediate repair of any damaged containment structures (i.e., rodent holes, cracks, erosion, etc.) should be provided.

- A description of methods and schedules for maintaining disposal areas in a condition that maximizes the efficient disposal of wastewater in the winter should be provided (i.e., grading, disking, etc.).

- An equipment maintenance schedule should be provided to assure the efficient, consistent and reliable operation of all pumps, sumps, pipelines, etc.

- Weed abatement measures to maintain access to containment structures, maintain capacity of containment structures and to maintain the efficient distribution of wastewater through channels, etc., should be addressed.

- A brief emergency spill plan must be included. The plan must include a list of spare parts (pump, piping, valves, etc.) that are to be kept on site to maintain adequate wastewater containment facilities, a list of names and phone numbers for contacts for obtaining immediate emergency equipment (pump, piping, valves, heavy equipment, etc.), and a list of names and phone numbers for reporting problems (Board staff, County staff, etc.).

Annual Report of Animal Waste Discharge

Santa Ana Regional Water Quality Control Board
3737 Main Street, Suite 500
Riverside, CA 92501-3348
(909) 782-4130

Reporting Period: January 1, 200__ to December 31, 200__
Report Due Date: **January 15, 200__**

Facility Information (Please make corrections directly on this form.)
Operator's Name
Facility Name
Facility Address
Mailing Address
Telephone Number

Does the information provided apply only to the facility address indicated above? ☐ Yes ☐ No

If **No**, please provide the name and address of the other facilities in the Comments section of this report.

Note: Submit a separate report for each of your facilities including dry cow, heifer, and calf ranches.

Animal Population	**Manure Information**
	Units used below: ☐ tons ☐ cubic yards
No. Milking Cows _____	Amount of manure spread on cropland at the facility: _____
No. Dry Cows _____	
No. Heifers _____	Amount of manure hauled away from your facility: (Please provide copies of all Manure Tracking Manifests showing the hauler name and the destination of the manure.) _____
No. Calves _____	
Others _____	Amount of manure produced in 200X that is stockpiled on site as of 12/31/0X: _____

Were the production factors provided below used to estimate your manure information? ☐ Yes ☐ No

1 Milking cow produces approximately 4.1 tons per year of manure.

1 Dry cow produces approximately 4.1 tons per year of manure.

1 Heifer produces approximately 1.5 tons per year of manure.

1 Calf produces approximately 0.6 tons per year of manure.

1 ton of corral manure equals 2.32 cubic yards.

1 cubic yard of corral manure equals 0.43 tons.

Crop Growing Activity

Write in the number of acres where manure has been applied to cropland at your facility. Cropland acreage is the number of acres, contiguous to the dairy, where manure was applied and a crop was harvested.

No. of cropland acres: _____

No. of plantings per year: ☐ one ☐ two ☐ three

Type of crop grown:

☐ Sudan grass	☐ Alfalfa	☐ Winter wheat
☐ Barley	☐ Bermuda grass	☐ Corn
☐ Oats	☐ Rye Grass	☐ Vegetables
	☐ Other: _____	

Number of Milkings per day (Dairies only): ☐ one ☐ two ☐ three

Comments:

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name of person making this report **(please print)**:_____

Title:_____

Signature:_____

Date:_____

Manure Tracking Manifest

Santa Ana Regional Water Quality Control Board

Instructions

1) Complete one manifest for each hauling event, for each destination. A hauling event may last for several days, as long as the manure is being hauled to the same destination.
2) If there are multiple destinations, **complete a separate form for each destination**.
3) The **operator** must obtain the signature of the hauler upon completion of each manure hauling event.
4) The **operator** shall submit manure tracking manifest(s) with the Annual Report of Animal Waste Discharge to the Santa Ana Regional Water Quality Control Board.

Operator Information

Name of the Operator:

Name of Facility:

Facility Address:

Mailing Address:

Phone Number:

Manure Hauler Information

Name of Hauling Company and Contact Person:	Phone Number:

Destination Information

Hauled To (please check one):

- ☐ Composting Facility
- ☐ Regional Digester
- ☐ Riverside County
- ☐ San Bernardino County
- ☐ Other County: _____

Dates Hauled:

Please give the name and location of the composting operation, or, if the manure was hauled to cropland, the owner or tenant, and the destination address, or nearest cross streets.

Please enter the amount in the box below and circle the appropriate units:

Amount Removed from Facility:	Amount Composted:	Amount to Digester:
☐ Tons or Cubic Yards	☐ Tons or Cubic Yards	☐ Tons or Cubic Yards

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Operator's Signature: _____ Date: _____

Hauler's Signature: _____ Date: _____

Annual Summary Report
Of
CAFO Weekly Storm Water Management Structure Inspections
Santa Ana Regional Water Quality Control Board

Reporting Period: January 1, 200__ to December 31, 200__

Facility Information (Please make corrections directly on this form.)
Operator's Name
Facility Name
Facility Address

Was the CAFO Weekly Storm Water Management Structure Inspections Log Sheet completed for the entire year? ☐ Yes ☐ No

If **No**, please explain why the log sheet was not completed for the entire year.

_____

_____

_____

Were there any process wastewater discharge incidents during the year? ☐ Yes ☐ No

If **Yes**, please provide: the date of the incident, how it was discovered (was it during a routine site inspection?), how long did the discharge last, and how it was stopped.

Date of incident	How was it discovered?	How long did it last?	How was it stopped?

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name of person making this report (please print): _____

Title: _____

Signature: _____

Date: _____

CAFO Weekly Storm Water Management Structure Inspections Log Sheet

Santa Ana Regional Water Quality Control Board

Reporting Period: _____

Facility Information (Please make corrections directly on this form.)
Operator's Name:
Facility Name:
Facility Address:

Instructions: Use this form to keep track of weekly visual inspections of your process wastewater and storm water containment structures. List the items that need to be inspected below (refer to your Engineered Waste Management Plans).

Keep track of your inspections in the following table by filling out one row each week when you inspect your process wastewater and storm water containment structures. Provide the following information: date of inspection, initials of the person performing the inspection, check "OK" box if no problems were found, use the "Notes" column to describe problems, if you find any, and how they were fixed, record the estimate of the wastewater containment pond(s) freeboard, fill in the "Date Corrected" column with the date when you corrected the problem.

Week	Date	Initials	OK	Notes (Note any problems found and how problems were remedied)	Waste Pond Freeboard[1]	Date Corrected
1						
2						
3						
4						

[1] ***Freeboard*** *is the elevation difference between the wastewater (liquid) level in the pond and the lowest point of the pond embankment before it can overflow.*

CAFO Weekly Storm Water Management Structure Inspections Log Sheet

Santa Ana Regional Water Quality Control Board

Reporting Period: _____

Facility Name: _____

Week	Date	Initials	OK	Notes (Note any problems found and how problems were remedied)	Waste Pond Freeboard[1]	Date Corrected
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						

[1] ***Freeboard*** *is the elevation difference between the wastewater (liquid) level in the pond and the lowest point of the pond embankment before it can overflow.*

CAFO Weekly Storm Water Management Structure Inspections Log Sheet

Santa Ana Regional Water Quality Control Board

Reporting Period: _____

Facility Name: _____

Week	Date	Initials	OK	Notes (Note any problems found and how problems were remedied)	Waste Pond Freeboard[1]	Date Corrected
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						

[1] ***Freeboard*** *is the elevation difference between the wastewater (liquid) level in the pond and the lowest point of the pond embankment before it can overflow.*

CAFO Weekly Storm Water Management Structure Inspections Log Sheet

Santa Ana Regional Water Quality Control Board

Reporting Period: _____

Facility Name: _____

Week	Date	Initials	OK	Notes (Note any problems found and how problems were remedied)	Waste Pond Freeboard[1]	Date Corrected
25						
26						
27						
28						
29						
30						
31						
32						
33						
34						

[1] ***Freeboard*** *is the elevation difference between the wastewater (liquid) level in the pond and the lowest point of the pond embankment before it can overflow.*

CAFO Weekly Storm Water Management Structure Inspections Log Sheet

Santa Ana Regional Water Quality Control Board

Reporting Period: _____

Facility Name: _____

Week	Date	Initials	OK	Notes (Note any problems found and how problems were remedied)	Waste Pond Freeboard[1]	Date Corrected
35						
36						
37						
38						
39						
40						
41						
42						
43						
44						

[1] ***Freeboard*** *is the elevation difference between the wastewater (liquid) level in the pond and the lowest point of the pond embankment before it can overflow.*

CAFO Weekly Storm Water Management Structure Inspections Log Sheet

Santa Ana Regional Water Quality Control Board

Reporting Period: _____

Facility Name: _____

Week	Date	Initials	OK	Notes (Note any problems found and how problems were remedied)	Waste Pond Freeboard[1]	Date Corrected
45						
46						
47						
48						
49						
50						
51						
52						

[1] ***Freeboard*** *is the elevation difference between the wastewater (liquid) level in the pond and the lowest point of the pond embankment before it can overflow.*